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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,855	07/07/2003	Xiao-An Zhang	200300074	9152
22879	7590	06/30/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			RUDE, TIMOTHY L	
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/614,855	<b>Applicant(s)</b> ZHANG ET AL.	
	<b>Examiner</b> Timothy L. Rude	<b>Art Unit</b> 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2005.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.  
 4a) Of the above claim(s) 14-16 and 30-32 is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☒ Claim(s) 1-13 and 17-29 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Request for Information</u> .          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of species A in the reply filed on 06 April 2005 is acknowledged. The traversal is on the ground(s) that species A is generic and species B and C are variants. This is not found persuasive because Applicant has not shown that a species of the claimed invention that is not B and also not C cannot exist. Examiner considers species A to be embodiments of the claimed invention that are not species B and also not species C.

The requirement is still deemed proper and is therefore made FINAL.

Claims 14-16 and 30-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 06 April 2005.

2. Upon further consideration, and in view of Applicant's election, species A of this application still contains claims directed to the following patentably distinct species of the claimed invention:

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Species D, drawn to a three-dimensional molecular assembly, formed on a substrate, comprising seed molecules having one connector portion (see claim 2).

Species E, drawn to a three-dimensional molecular assembly, formed on a substrate, comprising seed molecules having more than one connector portion (see claim 3).

Species F, drawn to a three-dimensional molecular assembly, formed on a substrate, comprising active molecules having one connector portion (see claim 4).

Species G, drawn to a three-dimensional molecular assembly, formed on a substrate, comprising active molecules having more than one connector portion (see claim 5).

Species H, drawn to a three-dimensional molecular assembly, formed on a substrate, comprising spacer molecules having one connector portion (see claim 9).

Species I, drawn to a three-dimensional molecular assembly, formed on a substrate, comprising spacer molecules having more than one connector portion (see claim 10).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species from each of D-E, F-G, and H-I (3 species total) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Currently, claim 1 appears to be generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



tlr

Timothy L Rude  
Examiner  
Art Unit 2883



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800

***Requirement for Information (MPEP 704.10 ~ 704.14)***

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

1. The information is required to extend the domain of search for prior art. Limited amounts of art related to the claimed subject matter are available within the Office, and are generally found in class 349 and subclasses 33, which describe electrically excited liquid crystal displays. A broader range of art to search is necessary to establish the level of knowledge of those of ordinary skill in the claimed subject matter art of three-dimensional molecular assembly and its applications for molecular display and moletronics.
2. The information is required to identify products and services embodying the disclosed subject matter of three-dimensional molecular assembly and its applications for molecular display and moletronics and identify the properties of similar products and services found in the prior art.
3. The information is required to enter in the record the art suggested by the applicant as relevant to this examination in three-dimensional molecular assembly and its applications for molecular display and moletronics.

4. In response to this requirement, please provide a list of keywords that are particularly helpful in locating publications related to the disclosed art of three-dimensional molecular assembly and its applications for molecular display and moletronics.

5. In response to this requirement, please provide a list of citations to electronically searchable databases or other indexed collections containing publications that document the knowledge within the disclosed art of three-dimensional molecular assembly and its applications for molecular display and moletronics.

6. In response to this requirement, please provide copies of each publication which any of the applicants authored or co-authored and which describe the disclosed subject matter of three-dimensional molecular assembly and its applications for molecular display and moletronics.

7. In response to this requirement, please provide the title, citation and copy of each publication that any of the applicants relied upon to develop the disclosed subject matter that describes the applicant's invention, particularly as to developing three-dimensional molecular assembly and its applications for molecular display and moletronics. For each publication, please provide a concise explanation of the reliance placed on that publication in the development of the disclosed subject matter.



8. In response to this requirement, please state whether any search of prior art was performed. If a search was performed, please state the citation for each prior art collection searched. If any art retrieved from the search was considered material to demonstrating the knowledge of a person having ordinary skill in the art to the disclosed three-dimensional molecular assembly and its applications for molecular display and moletronics, please provide the citation for each piece of art considered and a copy of the art.

9. In response to this requirement, please state the specific improvements of the subject matter in claims 1-13 and 17-29 over the disclosed prior art and indicate the specific elements in the claimed subject matter that provide those improvements. For those claims expressed as means or steps plus function, please provide the specific page and line numbers within the disclosure which describe the claimed structure and acts.

In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained may be accepted as a complete reply to the requirement for that item.

This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800